



Cal/EPA

Operator Certification



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Defining Compliance

Qualifying Wastewater Operator Experience

The Office of Operator Certification (OOC) recognizes that not all operators are able to personally attend conferences and conventions. This is the first in a series of articles outlining material presented by the OOC at conferences and conventions. A presentation outlining operator certification compliance is available through the OOC at any location showing sufficient interest.

The State Water Resources Control Board will only recognize certain activities at a wastewater plant as qualifying operator experience. The regulations point out that, *"Operates" means the performance of day-to-day activities primarily consisting of the control of any process... "operates" may include performance of day-to-day maintenance...*

An operator typically has many activities. A listing as found in the U.S. Environmental Protection Agency Publication, *Estimating Staffing for Wastewater Treatment Facilities*, is as follows:

1. Operation of process equipment, valves, and pumps, as well as affiliated engines, and generators;
2. Cleaning of clarifier weirs, bar screens, and other items necessary for proper unit process function;
3. Taking sewage samples as required;
4. Operation of electrical controls (timers, etc.);
5. Monitoring of gauges, meters, and control panels;
6. Recognition of process upsets, and of critical conditions in unit processes;
7. Determination of treatment process condition using lab data and meter and gauge readings;
8. Mixing of any chemicals required in treatment;
9. Inspection of plant for overall process condition.

Although this listing was compiled in March 1973, it still holds true today. All of the listed items are typical day-to-day operator activities executed to control a wastewater

process unit or plant. Depending on the plant, the unit processes, and the daily conditions there may be specific operator duties at a facility which are not mentioned but which should fall generally within the listing. Special conditions can modify what may or may not be considered as operator duties and are reviewed on a case-by-case basis by the OOC.

An operator or OIT "operates" a wastewater plant which means the "control of any process." This is not the same as "process control." Although it may seem like semantics, there is a difference. "Process control" is commonly considered one of the many activities an operator accomplishes on a day-to-day basis while operating a unit process, or portion, of a wastewater plant. From the listing of duties, Item 6 and Item 7 can be considered a reflection of what is commonly referred to as "process control." On a day-to-day basis, "process control" is typically a negligible portion of an operator's day-to-day activities.

"Primarily," as used in the definition of "operates," means a preponderance or majority of time. It should be noted that the definition does not state that "operates" will include performance of day-to-day maintenance, but points out that "operates" **may** include maintenance. This distinction clearly separates operating a plant from the maintenance of a plant and is the rationale for the OOC not considering maintenance as qualifying operator experience.

Nevertheless, the OOC recognizes that a person who is primarily an operator may spend time in the performance of

Operator Certification is a newsletter published by the State Water Resources Control Board, Office of Operator Certification. Continuing issues will introduce staff, publish articles of interest to certified operators, and highlight enforcement actions taken throughout the State. To submit story ideas, comments, or suggestions please call (916) 227-4362.

Proof of Citizenship Required

Any application or renewal for a wastewater treatment plant operator or Operator-in-Training (OIT) certificate must include documentation that the applicant is either a citizen of the United States or a qualified alien. Regulations to implement Section 411 of Title IV of the federal Personal Responsibility and Work Opportunity Reconciliation Act of 1996 have been adopted by the State Water Resources Control Board.

Such documentation must be submitted as part of the application along with the form, "Statement of Citizenship, Alienage and Immigration Status for State Public Benefits." An applicant must send the original or certified copy of any of the documents showing they are a citizen or qualified alien. Certified copies which bear the official seal of the issuing agency are acceptable. **Xeroxed and notarized copies will not be accepted.** It is suggested that documents be sent to the OOC by certified mail. The OOC will return your documents by certified mail.

Submitting documentation is a one-time only requirement and once confirmed will not again be requested by the OOC. Failure to submit the proper documentation will result in a deficient application. Deficient applications will not be processed.

If you have questions, call the OOC at (916) 227-4300. The voice mail will direct you to leave a message at Option 3 followed by the pound sign. We will return your call as soon as possible.

Examination Passing Rates, Review Dates

Examination passing rates increased from Fall 1997 to Spring 1998 for Grades I, II, and III but decreased for Grades IV and V. Table 1 (see Page 4) outlines the number of operators tested, the number of operators who passed, and the percentage of those passing each certification exam for Fall 1997 and Spring 1998.

Those who do not pass their examination may review their graded test. The review for the Fall 1998 examination will be held in Sacramento as well as in Los Angeles. In Sacramento, the Grades I and II were reviewed on December 17, 1998 while the Grades III, IV and V will review on January 21, 1998. In Los Angeles, all grades will be reviewed on January 21, 1998. A review time for the Fall 1998 examination may be reserved by calling the OOC at (916) 227-4300.

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Questions, Questions, Questions

Q: Should I do what my supervisor tells me even if I do not think it is right?"

A: An operator should do anything job related which their supervisor, who must hold a valid and current California wastewater operator certificate, directs him/her to do and which the operator feels safe in doing. If the direction is a "prohibited act," as outlined in the Regulations, the operator should inform the supervisor of such. If the supervisor instructs the operator to perform the prohibited act, the operator should follow the supervisor's instruction and then immediately report the incident to the OOC.

Q: Can I post a copy of my certificate instead of my original?

A: The intent of the regulation is that original certificates, not copies, be displayed. Operators should be aware that the certificate is in their custody only because they are named on the certificate. The certificate actually belongs to the people of the State of California, who have a right to view the original should they choose to do so. Therefore, the original certificate is to be posted. This is similar to a peace officer asking to see your California Drivers License, at which time you must produce your original. Should an operator find that their job requires working at several wastewater plants, a duplicate of the certificate can be obtained for \$20 through the OOC.

Q: How do I get an OIT certificate without first taking the certification exam?

A: An Operator-in-Training (OIT) who initially does not take any test may be granted a Grade I OIT certificate if the OIT shows that they will work at least 10 hours or more each week as an operator. This assures the OOC that the applicant can gain the one-year of necessary qualifying operator experience within four years. The OIT must pass the Grade I certification examination, given in April and October of each year, within the first two years of holding their valid OIT certificate. An OIT who does not pass the test within the first two years will not have their OIT certificate renewed. When an OIT certificate is not renewed, the OIT may not perform the duties of an operator. The OIT may continue to apply and take the examination until they pass, at which point they may apply to receive another OIT certificate. For Grades II, III, IV or V, OIT certificates, the applicant must first pass the certification examination for the grade level which they will be an OIT.

Administrative Actions by the State Water Resources Control Board

Administrative sanctions include fines, reprimand or denial, suspension, probation, or revocation of a certificate pursuant to Section 13627 of the Water Code and may be taken by the SWRCB against any person, agency, district, or other entity found in violation of specific sections of the Operator Certification Regulations or Water Code. The following are administrative sanctions taken by the SWRCB against entities operating wastewater treatment plants and certified operators of wastewater plants.

Actions Against Operator Certificates

The following are administrative sanctions taken by the SWRCB against California certified operators.

Robert Platte

Name of Facility: Jurupa Community Services District

Misconduct: Falsification of Internal Process Control Records

Discipline: Letter of Reprimand

The OOC found that the Chief Plant Operator (CPO) changed internal process control test results. The CPO, without intent to mislead or deceive, changed the laboratory

results to what was considered by the CPO to be, "more realistic." The OOC found that the sampling point was positioned in a way which encouraged unreliable test results. The OOC has requested that the District change the sampling point to achieve more accurate laboratory test results.

Lloyd Bracewell

Name of Facility: City of Hercules

Misconduct: Failure to Sample; Unauthorized Bypass; Uncertified Operator

Discipline: Letter of Reprimand by SWRCB and Administrative Civil Liability paid to Regional Water Quality Control Board.

The OOC investigated allegations that Bracewell violated the Regulations by allowing violations of the City's NPDES permit and employing an uncertified operator.

The OOC found Bracewell responsible for the following violations of the Regulations:

1. Failure to monitor chlorine residual on the weekends for about six years.
2. Failure to explain in self-monitoring reports seventeen missing BOD or TSS sample results.
3. Five bypasses of the dual-media filters unauthorized by the Regional Board.
4. Employing an operator with an expired certificate.

To file an Allegation or Complaint, call the OOC at (916) 227-4362

Defining Compliance

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non-operator activities in the course of a workday. Many times the non-operator activities include day-to-day maintenance. This is where the word "may" comes into effect. The OOC may allow inclusion of day-to-day maintenance if the person is primarily an operator. Therefore, a person who is primarily an operator can be granted full-time qualifying operator experience time if a negligible portion of the operator's time is in the performance of day-to-day maintenance.

The regulations do not address situations when a person is not primarily an operator. The OOC recognizes that there are situations where an operator will perform activities in an organization which are unrelated to the wastewater plant. Also the OOC supports learning and training to increase an

individual's talents and capabilities. Therefore, the OOC has allowed prorating of qualifying operator experience time accumulated at a rate less than that suggested for a person who is primarily an operator. However, because the person is not primarily an operator, the OOC will not include day-to-day maintenance as qualifying operator experience.

For example, if a person works only 50% of their time as an operator, they will be granted only 50% qualifying operator experience (not including day-to-day maintenance activities) as qualifying operator experience. In this example, of a person effectively working half-time as an operator, it would take two years to accumulate one year of qualifying operator experience.

Operator Exam Grading**Pointers On Getting More Points When Taking a Certification Examination**

The math and essay problems on all operator certification exams are hand graded and are open to partial credit. Grading is subjective, therefore, partial credit is given according to the grader's assessment of how well an examinee apparently understands the material. Enough work must be shown to convince the grader that there is some understanding of the material asked for in the math or essay problem statement.

Following are suggestions which outline how an examinee can obtain partial credit on the operator certification examination:

Write or print clearly and legibly. If the grader struggles to read poor handwriting and must try to interpret answers, the grader may tend to be less generous with partial credit. Neatness does count.

Read the question carefully and answer it as precisely as possible. Supplementing the answer with additional information may exhibit further knowledge of the subject. Do so only if the best attempt to fully answer the question has been made. Additional information will not result in more points than the question is worth, but it may

assist the grader's decision on how much partial credit to award. Assumptions should also be listed.

Show all work for math problems and include appropriate units. A correct answer without work shown will not be given any credit. An incorrect answer showing all steps could be awarded a considerable amount of partial credit if the intermediate steps indicate an understanding of the material.

For Grades III, IV, and V, clearly indicate which problems are not to be graded. Otherwise, these problems are awarded zero points and counted toward the overall score.

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Table 1 : Certification Exam Statistics

Date	Fall 1997			Spring 1998		
Grade	Tested	Passed	% Pass	Tested	Passed	% Pass
I	133	77	58	164	127	77
II	189	81	43	139	87	62
III	123	42	34	124	63	51
IV	58	35	60	40	9	22
V	40	24	60	37	13	35

How to Reach Our Office

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State Water Resources Control Board
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Operator Certification
Compliance Complaints
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